



链滴

Flink(1)——初体验

作者: [flowaters](#)

原文链接: <https://ld246.com/article/1512148270021>

来源网站: [链滴](#)

许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)

背景

Flink是一个实时计算平台，同时支持stream计算和batch计算。

其中的stream计算支持exact-once，低延迟和高吞吐。

安装

docker安装

参考[flink docker官方页面](#)

```
docker pull flink
```

也可以走国内镜像

```
docker pull registry.docker-cn.com/library/flink
```

单机版启动

```
$docker run --name flink_local -p 8081:8081 -t flink local
```

打开浏览器可访问, <http://localhost:8081>

默认端口:

- 8081: Web Client port
- 6123: Job Manager RPC port
- 6122: Task Managers RPC port
- 6121: Task Managers Data port

集群版本请继续看[flink docker官方页面](#)

提交任务

通过 Web UI提交任务

或者命令行提交任务

```
$ docker run --rm -t flink flink run -m <jobmanager:port> -c <your_class> <your_jar> <your params>
```

小试牛刀

maven构建第一个任务

使用指定的maven archetype来构造工程blink-test，如下：

```
mvn archetype:generate \  
DarchetypeGroupId=org.apache.flink \  
DarchetypeArtifactId=flink-quickstart-java \  
DarchetypeVersion=1.3.2
```

目录内容如下:

```
.  
├── blink-test.iml  
├── pom.xml  
├── src  
│   └── main  
│       ├── java  
│       │   ├── com  
│       │   │   ├── abeffect  
│       │   │   └── blink  
│       │       ├── BatchJob.java  
│       │       ├── SocketTextStreamWordCount.java  
│       │       ├── StreamingJob.java  
│       │       └── WordCount.java  
│       └── resources  
│           └── log4j.properties
```

打包

```
mvn package
```

见打包的jar文件

```
target/blinktest-1.0-SNAPSHOT.jar
```

运行

提交作业

通过 web ui提交作业

结果查看

非docker版本

安装

- [下载安装包](#)
- 解压: `tar xf flink-1.3.2-bin-hadoop26-scala_2.11.tgz`

启动

```
bin/start-local.sh
```

查看任务

```
$ flink list
```

```
Retrieving JobManager.
```

```
Using address localhost/127.0.0.1:6123 to connect to JobManager.
```

```
No running jobs.
```

```
No scheduled jobs.
```

提交任务

```
flink run -c com.abeffect.blink.WordCount ~/IdeaProjects/blink-test/target/blinktest-1.0-SNA  
SHOT.jar
```

```
Cluster configuration: Standalone cluster with JobManager at localhost/127.0.0.1:6123
```

```
Using address localhost:6123 to connect to JobManager.
```

```
JobManager web interface address http://localhost:8081
```

```
Starting execution of program
```

```
Submitting job with JobID: e841d6ca8fb8081f595e0f01cc9935f5. Waiting for job completion.
```

```
Connected to JobManager at Actor[akka.tcp://flink@localhost:6123/user/jobmanager#-1554  
95054] with leader session id 00000000-0000-0000-0000-000000000000.
```

```
12/02/2017 11:18:04 Job execution switched to status RUNNING.
```

```
12/02/2017 11:18:04 CHAIN DataSource (at main(WordCount.java:52) (org.apache.flink.api.j  
va.io.CollectionInputFormat)) -> FlatMap (FlatMap at main(WordCount.java:61)) -> Combine(  
UM(1), at main(WordCount.java:64)(1/1) switched to SCHEDULED
```

```
12/02/2017 11:18:04 CHAIN DataSource (at main(WordCount.java:52) (org.apache.flink.api.j  
va.io.CollectionInputFormat)) -> FlatMap (FlatMap at main(WordCount.java:61)) -> Combine(  
UM(1), at main(WordCount.java:64)(1/1) switched to DEPLOYING
```

```
12/02/2017 11:18:04 CHAIN DataSource (at main(WordCount.java:52) (org.apache.flink.api.j  
va.io.CollectionInputFormat)) -> FlatMap (FlatMap at main(WordCount.java:61)) -> Combine(  
UM(1), at main(WordCount.java:64)(1/1) switched to RUNNING
```

```
12/02/2017 11:18:05 Reduce (SUM(1), at main(WordCount.java:64)(1/1) switched to SCHED  
LED
```

```
12/02/2017 11:18:05 Reduce (SUM(1), at main(WordCount.java:64)(1/1) switched to DEPLOY  
NG
```

```
12/02/2017 11:18:05 Reduce (SUM(1), at main(WordCount.java:64)(1/1) switched to RUNNI  
G
```

```
12/02/2017 11:18:06 CHAIN DataSource (at main(WordCount.java:52) (org.apache.flink.api.j  
va.io.CollectionInputFormat)) -> FlatMap (FlatMap at main(WordCount.java:61)) -> Combine(  
UM(1), at main(WordCount.java:64)(1/1) switched to FINISHED
```

```
12/02/2017 11:18:06 DataSink (collect()(1/1) switched to SCHEDULED
```

```
12/02/2017 11:18:06 DataSink (collect()(1/1) switched to DEPLOYING
```

```
12/02/2017 11:18:06 Reduce (SUM(1), at main(WordCount.java:64)(1/1) switched to FINISH  
D
```

```
12/02/2017 11:18:06 DataSink (collect()(1/1) switched to RUNNING
```

```
12/02/2017 11:18:06 DataSink (collect()(1/1) switched to FINISHED
```

```
12/02/2017 11:18:06 Job execution switched to status FINISHED.
```

```
(a,1)
```

```
(against,1)
```

```
(and,1)
```

```
(arms,1)
```

```
(arrows,1)
```

```
(be,2)
```

```
(fortune,1)
```

```
(in,1)
```

```
(is,1)
(mind,1)
(nobler,1)
(not,1)
(of,2)
(or,2)
(outrageous,1)
(question,1)
(sea,1)
(slings,1)
(suffer,1)
(take,1)
(that,1)
(the,3)
(tis,1)
(to,4)
(troubles,1)
(whether,1)
Program execution finished
Job with JobID e841d6ca8fb8081f595e0f01cc9935f5 has finished.
Job Runtime: 1642 ms
Accumulator Results:
- fe75b1f5e0c1c59aac0e22f24b1ae083 (java.util.ArrayList) [26 elements]
```

取消任务

停止运行任务

```
flink cancel jobId
```

停止任务

停止输入数据流，source需要实现StoppableFunction接口

```
flink stop jobId
```